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**CHOI et al.**(10) **Pub. No.: US 2017/0033442 A1**(43) **Pub. Date: Feb. 2, 2017**(54) **ELECTRONIC DEVICE INCLUDING  
ANTENNA DEVICE****H01Q 1/38** (2006.01)**G06F 3/044** (2006.01)(71) Applicant: **Samsung Electronics Co., Ltd.**,  
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**ABSTRACT**(73) Assignee: **Samsung Electronics Co., Ltd.**(21) Appl. No.: **15/217,411**(22) Filed: **Jul. 22, 2016**(30) **Foreign Application Priority Data**

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An electronic device is provided. The electronic device includes a housing including a window that forms a first side of the electronic device, and a second side that is disposed opposite to the first side, a touch sensor disposed adjacent to the window and configured to generate a capacitance, an input circuit operably connected to the touch sensor and configured to detect an input based on a variation in the capacitance, an antenna radiator at least one of partially disposed inside the housing and a part of the housing, a ground operably disposed between the first side and the second side, a communication circuit operably connected to the antenna radiator and the ground, and an antenna matching circuit operably connected to the touch sensor and the input circuit.

